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STRUCTURE FILE UPDATES:   12 OCT 2008  HIGHEST RN 1060442-20-7
DICTIONARY FILE UPDATES:  12 OCT 2008  HIGHEST RN 1060442-20-7

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=> d his nofile

     (FILE 'HOME' ENTERED AT 09:25:04 ON 14 OCT 2008)

     FILE 'HCAPLUS' ENTERED AT 09:25:15 ON 14 OCT 2008
L1             1 SEA ABB=ON  PLU=ON  US20060127750/PN
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 09:25:44 ON 14 OCT 2008
L2             5 SEA ABB=ON  PLU=ON  (10045-86-0/BI OR 1314-56-3/BI OR
                 7439-89-6/BI OR 7664-38-2/BI OR 7722-76-1/BI)
                 D SCA
L3             1 SEA ABB=ON  PLU=ON  "PHOSPHORIC ACID"/CN
L4             1 SEA ABB=ON  PLU=ON  "PHOSPHORUS PENTOXIDE"/CN
L5             1 SEA ABB=ON  PLU=ON  "DIAMMONIUM HYDROGEN PHOSPHATE"/CN

     FILE 'HCAPLUS' ENTERED AT 10:03:16 ON 14 OCT 2008
L6                 QUE ABB=ON  PLU=ON  POSITIVE?(A)(ACTIVE? OR ELECTRODE)
                   OR CATHODE
L7         76568 SEA ABB=ON  PLU=ON  L3
L8           678 SEA ABB=ON  PLU=ON  (L3 OR PHOSPHORIC(W)ACID OR H3PO4)(10
                   A)L6
L9         22808 SEA ABB=ON  PLU=ON  L4
L10          206 SEA ABB=ON  PLU=ON  (L4 OR PHOSPHORUS(W)(OXIDE OR
                   PENTOXIDE) OR P2O5)(10A)L6
L11         8077 SEA ABB=ON  PLU=ON  L5
L12           80 SEA ABB=ON  PLU=ON  (L5 OR DIAMMONIUM(W)(HYDROGENPHOSPHAT
                   E OR HYDROGEN(W)PHOSPHATE))(10A)L6
L13         1516 SEA ABB=ON  PLU=ON  L7 AND L9
L14           29 SEA ABB=ON  PLU=ON  L13 AND L6
L15            7 SEA ABB=ON  PLU=ON  L14 AND L11
L16           18 SEA ABB=ON  PLU=ON  L8 AND L10
L17            5 SEA ABB=ON  PLU=ON  L16 AND L12
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L18             7 SEA ABB=ON  PLU=ON  L15 OR L17
L19            12 SEA ABB=ON  PLU=ON  L16 NOT L18
L20             9 SEA ABB=ON  PLU=ON  ((L18 OR L19)) AND (PY<=2002 OR
                  PRY<=2002 OR AY<=2002)
L21             1 SEA ABB=ON  PLU=ON  L18 AND L20
L22             8 SEA ABB=ON  PLU=ON  L19 AND L20

=> fil hcap
FILE 'HCAPLUS' ENTERED AT 10:33:13 ON 14 OCT 2008
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FILE COVERS 1907 - 14 Oct 2008  VOL 149 ISS 16
FILE LAST UPDATED: 12 Oct 2008  (20081012/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d ibib abs hitstr hitind l21

L21  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2007:359265  HCAPLUS  Full-text
DOCUMENT NUMBER:         146:530855
TITLE:                   A process for preparing a Eu-activated phosphate
                         polycrystalline ceramic phosphor composition
                         simultaneously emitting red and green light for
                         use in luminescent display screen and compact
                         fluorescent lamps
INVENTOR(S):             Mahapatra, Gourkrishna Das; Debnath,
                         Radhaballabh; Sahoo, Rampada; Chaudhuri, Ahindra
                         Kumar
PATENT ASSIGNEE(S):      Council of Scientific and Industrial Research,
                         India
SOURCE:                  Indian Pat. Appl., 9pp.
                         CODEN: INXXBQ
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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IN 2000DE00611 A 20060317 IN 2000-DE611 200006 23

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PRIORITY APPLN. INFO.: IN 2000-DE611 200006 23

<--

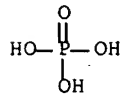
AB This invention relates to a process for preparing a novel polycryst. ceramic phosphor composition which can generate simultaneously both red and green intense luminescence upon excitation either with UV light or with energetic electrons from a **cathode** ray-tube and is useful as a light emitting material of a fluorescent lamp and a visual display screen. The fabrication process entails preparing a homogeneous mixture of 30-50 mol.% phosphorous pentoxide (P2O5) and 25-50 mol.% of aluminum ion (Al+3) either in the form of oxide or nitrate or phosphate or halide, adding 30-45 mol.% of an alkaline earth metal ion either in the form of oxide (MO) or halide (MX) or a mixture thereof where M=Ca, Mg, Sr, Ba, adding to the mixture 0-12 mol.% of any one of the oxide from La2O3, Y2O3, Zr2O3, adding Eu+3 ion in the mixture in an overall concentration range of 3-7 mol.%, firing the reaction mixture in the range of temperature of 200-1200°, crushing the reaction product in to powder followed by crystallizing the powder into micro crystals of uniform particle size by heat treating at a temperature range of 800-1200° for 5-12 h under inert atmospheric

IT **1314-56-3**, Phosphorus oxide (P2O5), processes
7664-38-2, Orthophosphoric acid, processes **7783-28-0**
, Di ammonium hydrogen phosphate
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(precursor; preparing Eu-activated polycryst. ceramic phosphor composition simultaneously emitting red and green light using)

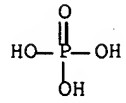
RN 1314-56-3 HCAPLUS
CN Phosphorus oxide (P2O5) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 7664-38-2 HCAPLUS
CN Phosphoric acid (CA INDEX NAME)



RN 7783-28-0 HCAPLUS
CN Phosphoric acid, ammonium salt (1:2) (CA INDEX NAME)



●2 NH_3

IC ICM C09K011-00
CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 57
IT 1304-28-5, Barium oxide, processes 1305-78-8, Calcium oxide (CaO), processes 1308-96-9, Europium oxide 1312-81-8, Lanthanum oxide 1314-23-4, Zirconium oxide, processes 1314-36-9, Yttrium oxide (Y2O3), processes **1314-56-3**, Phosphorus oxide (P2O5), processes 1344-28-1, Alumina, processes **7664-38-2**, Orthophosphoric acid, processes 7722-76-1, Ammonium di hydrogen phosphate **7783-28-0**, Di ammonium hydrogen phosphate 7783-48-4, Strontium fluoride 7784-30-7, Aluminum orthophosphate 7789-75-5, Calcium fluoride, processes 10025-76-0, Europium chloride 10138-01-9, Europium nitrate 10361-37-2, Barium chloride, processes 10476-85-4, Strontium chloride 12060-18-3, Zirconium oxide (Zr2O3) 13473-90-0, Aluminum nitrate 13776-88-0
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(precursor; preparing Eu-activated polycryst. ceramic phosphor composition simultaneously emitting red and green light using)

=> d ibib abs hitstr hitind l22 1-8

L22 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:893306 HCAPLUS Full-text
DOCUMENT NUMBER: 142:77543
TITLE: Process for producing lithium oxide-vanadium oxide glass for cathode material of lithium secondary cell
INVENTOR(S): Son, Myung Mo
PATENT ASSIGNEE(S): S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2001061077	A	20010707	KR 1999-63559	19991228
			<--	
PRIORITY APPLN. INFO.:			KR 1999-63559	19991228
			<--	

AB Provided is a Li2O-V2O5 glass used for **cathode** material of a lithium secondary cell, especially a Li2O-Bi2O3-**P2O5**-V2O5 crystalline glass, which is chemical stable and has high charging and discharging capacity. The Li2O-Bi2O3-P2O5-V2O5 crystalline glass is produced by: setting a glass composition range at 5-50 mol% Li2O, 2-30 mol% Bi2O3, 3-40 mol% P2O5, and 30-90 mol% V2O5; mixing Li2CO3, H3PO4, Bi2O3, and V2O5 in the composition range and melting at 900-1000°C, then press molding the mixture using rollers; heat treating the molded product at 200-500°C to obtain the crystalline glass containing a LiVO3 fine crystal; grinding the glass and mixing with a binder and a conductive agent.
IC ICM H01M004-36

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 49, 57
IT 554-13-2 7664-38-2, **Phosphoric acid**, uses
RL: CPS (Chemical process); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(process for producing lithium oxide vanadium oxide glass for **cathode** material of lithium secondary cell)
IT 1304-76-3, Bismuth oxide (Bi2O3), uses 1314-56-3, Phosphorus oxide (P2O5), uses 1314-62-1, Vanadium oxide (V2O5), uses 7439-93-2, Lithium, uses 12057-24-8, Lithium oxide (Li2O), uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(process for producing lithium oxide vanadium oxide glass for **cathode** material of lithium secondary cell)

L22 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:355270 HCAPLUS Full-text
DOCUMENT NUMBER: 140:360343
TITLE: Manufacture of cathode active mass for lithium battery and the battery
INVENTOR(S): Okada, Shigeto; Yamaki, Jun-ichi; Chen, Yike; Yamamoto, Takafumi; Hatta, Naoki
PATENT ASSIGNEE(S): Japan as Represented by President of the University of Kyusyu, Japan; Mitsui Engineering & Shipbuilding Co., Ltd.
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004036672	A1	20040429	WO 2003-JP13315	200310 17
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2502596	A1	20040429	CA 2003-2502596	200310 17
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AU 2003301468	A1	20040504	AU 2003-301468	200310 17
			<--	

EP 1553648	A1	20050713	EP 2003-756676	200310 17
			<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1706056	A	20051207	CN 2003-80101663	200310 17
			<--	
CN 100369302	C	20080213		
US 20060127750	A1	20060615	US 2005-531191	200512 12
			<--	
PRIORITY APPLN. INFO.:			JP 2002-303932 A	200210 18
			<--	
			WO 2003-JP13315 W	200310 17

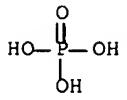
AB The cathode active mass, $FePO_4$ is prepared by dissolving Fe in a solution containing a PO_4^{3-} releasing compound and sintering the reaction product. The compound is preferably selected from H_3PO_4, P_2O_5, and $NH_4H_2PO_4$, and the active mass may be mixed with a conductive carbonaceous material and ground.

IT **1314-56-3, Phosphorus pentoxide,** processes **7664-38-2, Phosphoric acid,** processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(manufacture of iron phosphate **cathode** active mass for lithium battery)

RN 1314-56-3 HCAPLUS
CN Phosphorus oxide (P_2O_5) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 7664-38-2 HCAPLUS
CN Phosphoric acid (CA INDEX NAME)



IC ICM H01M004-58
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

IT **1314-56-3, Phosphorus pentoxide,** processes 7439-89-6, Iron, processes **7664-38-2, Phosphoric acid,** processes 7722-76-1, Ammonium dihydrogen phosphate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(manufacture of iron phosphate **cathode** active mass for lithium battery)

L22 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:355269 HCAPLUS Full-text
DOCUMENT NUMBER: 140:360342
TITLE: Manufacture of cathode active mass for secondary battery and the battery
INVENTOR(S): Okada, Shigeto; Yamaki, Jun-ichi; Hatta, Naoki; Uchiyama, Izumi; Inaba, Toshikazu
PATENT ASSIGNEE(S): Japan as Represented by President of the University of Kyusyu, Japan; Mitsui Engineering & Shipbuilding Co., Ltd.
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004036671	A1	20040429	WO 2003-JP13314	200310 17
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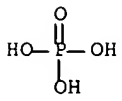
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2502592	A1	20040429	CA 2003-2502592	200310 17
			<--	
AU 2003301467	A1	20040504	AU 2003-301467	200310 17
			<--	
EP 1553647	A1	20050713	EP 2003-756675	200310 17
			<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1706057	A	20051207	CN 2003-80101674	200310 17
			<--	
CN 100359726	C	20080102		
US 20060147365	A1	20060706	US 2005-531196	200512 12

PRIORITY APPLN. INFO.: JP 2002-303931 A <-- 200210 18
WO 2003-JP13314 W <-- 200310 17

AB The cathode active mass, LiFePO4 os prepared by dissolving iron in a solution, containing a phosphate ion releasing compound and H2O; adding Li2CO3, LiOH, or their hydrated to the solution; and sintering the reaction product. Preferably the sintering is carried out by heating from .apprx.20° to 300-450° in a 1st stage, adding a substance that will pyrolyze to produce a conductive carbonaceous material, e.g. bitumen or sugar, to the heat treated material, and heating from .apprx.20° to a final temperature in a 2nd stage.

IT **7664-38-2, Phosphoric acid,** processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(manufacture of **cathode** active mass containing pyrolytic conductive carbonaceous materials for secondary lithium batteries)

RN 7664-38-2 HCAPLUS
CN Phosphoric acid (CA INDEX NAME)



IT **1314-56-3, Phosphorus pentoxide,** uses
RL: NUU (Other use, unclassified); USES (Uses)
(manufacture of **cathode** active mass containing pyrolytic conductive carbonaceous materials for secondary lithium batteries)

RN 1314-56-3 HCAPLUS
CN Phosphorus oxide (P2O5) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM H01M004-58
ICS C01B025-45
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
IT 1310-65-2, Lithium hydroxide 7439-89-6, Iron, processes
7664-38-2, Phosphoric acid, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(manufacture of **cathode** active mass containing pyrolytic conductive carbonaceous materials for secondary lithium batteries)
IT 144-62-7, Oxalic acid, uses **1314-56-3, Phosphorus pentoxide,** uses 7647-01-0, Hydrochloric acid, uses
RL: NUU (Other use, unclassified); USES (Uses)
(manufacture of **cathode** active mass containing pyrolytic conductive carbonaceous materials for secondary lithium batteries)

L22 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:210228 HCAPLUS Full-text
DOCUMENT NUMBER: 134:240115
TITLE: Lithium nickel oxide-based cathode material for secondary lithium battery and its manufacture
INVENTOR(S): Yamamoto, Hiroshi; Terao, Koichi; Yonemura, Koji; Kamei, Kazuto
PATENT ASSIGNEE(S): Sumitomo Metal Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001076724	A	20010323	JP 1999-249016	19990902 <--

PRIORITY APPLN. INFO.: JP 1999-249016 19990902 <--

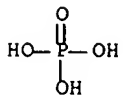
AB The cathode material comprise LixNi1-yMyO2 (M = Co, Mn, Fe, Al; 0.95 ≤ x < 1.1; yr = 0-0.5) containing Z oxide (Z = B and/or P) with the atomic ratio of Z/(Ni + M) 0.001-0.1, in which Z is localized in amorphous oxides at the grain boundary to show the Li occupation at Li(3a) site ≥95%. The anode material is manufactured by blending (A) Ni compds., mixts. of Ni compds. and M compds., and/or M-Ni solid solns. with (B) Z (compds.), calcining the mixts., mixing thus obtained oxides with Li compds., and firing the mixts. in an oxidizing atmospheric The cathode material shows improved thermal stability with keeping high capacity.

IT **1314-56-3, Phosphorus oxide**, uses
7664-38-2, Phosphoric acid, uses
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(manufacture of lithium nickel oxide-based **cathode** material for secondary lithium battery)

RN 1314-56-3 HCAPLUS
CN Phosphorus oxide (P2O5) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 7664-38-2 HCAPLUS
CN Phosphoric acid (CA INDEX NAME)



IC ICM H01M004-58
ICS H01M004-02
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 57

IT 1303-86-2, Boron oxide, uses **1314-56-3, Phosphorus oxide**, uses **7664-38-2, Phosphoric acid**, uses 10043-35-3, Boric acid, uses
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(manufacture of lithium nickel oxide-based **cathode** material for secondary lithium battery)

L22 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:275447 HCAPLUS Full-text
DOCUMENT NUMBER: 120:275447
ORIGINAL REFERENCE NO.: 120:48679a,48682a
TITLE: Lithium batteries
INVENTOR(S): Yumiba, Hideaki; Matsumoto, Kazunobu; Kawakami, Akira
PATENT ASSIGNEE(S): Hitachi Maxell, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06020691	A	19940128	JP 1992-199112	19920701

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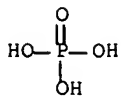
PRIORITY APPLN. INFO.: JP 1992-199112 19920701

<--

AB Li batteries comprise organic electrolytes, Li-containing materials as anode active mass, and **cathode** active mass containing CuO- **P2O5** base compds. and Li compound additives. The batteries inhibit voltage drop in initial discharging. Thus, a LiOH.H2O aqueous solution was added and mixed with Cu4O(PO4)2 powders, and heated to give a cathode active mass which was used for a Li battery.

IT **7664-38-2P, Phosphoric acid**, preparation
RL: PREP (Preparation)
(copper oxide phosphate from, for **cathodes** for lithium batteries)

RN 7664-38-2 HCAPLUS
CN Phosphoric acid (CA INDEX NAME)



IC ICM H01M004-58
ICS H01M004-02; H01M010-40

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST battery **cathode** copper **phosphorus oxide** ; lithium battery cathode copper oxide phosphate

IT **Cathodes**
(battery, copper **phosphorus oxide**, lithium compds.-containing)
IT 7439-93-2, Lithium, uses
RL: USES (Uses)
(batteries, copper **phosphorus oxide** **cathodes** for, lithium compds.-containing)
IT 1310-65-2, Lithium hydroxide
RL: USES (Uses)
(**cathodes** containing, copper **phosphorus** **oxide**, for lithium batteries)
IT 1317-38-0P, Copper oxide (CuO), preparation 7664-38-2P, **Phosphoric acid**, preparation
RL: PREP (Preparation)
(copper oxide phosphate from, for **cathodes** for lithium batteries)

L22 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:594848 HCAPLUS Full-text
DOCUMENT NUMBER: 113:194848
ORIGINAL REFERENCE NO.: 113:32939a
TITLE: Secondary nonaqueous batteries
INVENTOR(S): Yamaki, Junichi; Sakurai, Yoji; Mochizuki, Yuji; Tsuchia, Kenji; Inada, Kuniaki
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan; Toshiba Battery Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02054869	A	19900223	JP 1988-206090	198808 19

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PRIORITY APPLN. INFO.: JP 1988-206090 198808 19

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AB The batteries have a light metal anode and a **H3PO4** compound-containing amorphous V oxide **cathode**, where the **cathode**-active mass has a water content <0.25%. These batteries have high capacity and especially long cycle life.
IT **1314-56-3, Phosphorus pentoxide**, uses and miscellaneous
RL: USES (Uses)
(**cathodes** containing, vanadium oxide, tolerance limit of water content in, for batteries)
RN 1314-56-3 HCAPLUS
CN Phosphorus oxide (P2O5) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM H01M004-48
ICS H01M004-02; H01M004-58
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
ST battery vanadium oxide cathode; moisture vanadium oxide battery

cathode; phosphoric acid vanadium oxide cathode

IT Cathodes
(battery, vanadium oxide, containing phosphorus oxide, tolerance limit of water content in amorphous)

IT 1314-56-3, Phosphorus pentoxide, uses and miscellaneous
RL: USES (Uses)
(cathodes containing, vanadium oxide, tolerance limit of water content in, for batteries)

IT 1314-62-1, Vanadium pentoxide, uses and miscellaneous
RL: USES (Uses)
(cathodes, containing phosphorus oxide, tolerance limit of water content in, for batteries)

IT 7732-18-5, Water, uses and miscellaneous
RL: USES (Uses)
(tolerance limit of, in vanadium oxide cathodes containing phosphorus oxide, for batteries)

L22 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:59721 HCAPLUS Full-text
DOCUMENT NUMBER: 112:59721
ORIGINAL REFERENCE NO.: 112:10207a,10210a
TITLE: Fuel-cell stacks with monolithic unit cells
INVENTOR(S): Uozumi, Shohei; Miki, Atsushi
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01176665	A	19890713	JP 1988-110	19880105

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PRIORITY APPLN. INFO.: JP 1988-110 19880105

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AB The stacks have unit cells comprising an electrolyte matrix between a cathode and anode, air chambers, fuel gas chambers, and separators for separating the air and fuel gas chambers. The unit cells are made into monolithic bodies by molding the peripheries of the electrodes and the electrolyte matrix with a resin. The resin is preferably transparent, e.g. a C2F4-perfluoroalkoxyethylene copolymer. The electrolyte matrix is larger than the cathode and possibly larger than the anode with grooves formed on the portions not covered by the cathode and a H3PO4- or P2O5-containing material filled in the grooves to form seals. The monolithic unit cells are gastight.

IC ICM H01M008-02
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

L22 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:19094 HCAPLUS Full-text

DOCUMENT NUMBER: 86:19094
ORIGINAL REFERENCE NO.: 86:3075a,3078a
TITLE: Purification of phosphoric acid
INVENTOR(S): Ueda, Shiro; Mochinaga, Junichi; Sasaki, Yoshinori; Igarashi, Kazuo; Sato, Ichiro
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51106696	A	19760921	JP 1975-31054	197503 17

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PRIORITY APPLN. INFO.: JP 1975-31054 A 197503 17

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AB An electrodialyzer consisting of cathode, middle, and anode chambers partitioned by anion-and cation-exchange membranes is used for purification of crude H3PO4. Crude H3PO4, dilute H3PO4 purer than the crude **H3PO4**, and an acid solution are fed into the **cathode**, middle, and anode chambers, resp., and refined **H3PO4** is obtained from the middle chamber by electrodialysis. Thus, crude H3PO4 (P2O5 24.4, SO4 0.0012, Cl 0.0006, F 0.13, Fe 0.24, Al 0.15, Ca 0.0006, As 0.00087, Si 0.011, Cr 0.009, V 0.005%), dilute H3PO4 containing 3.6% **P2O5**, and 18% H2SO4 250 ml each were charged into the **cathode**, middle, and anode chambers, in an electrodialyzer, resp., and electrodialyzed at 1.15 A/dm2 and 26° for 10 hr. The refined H3PO4 contained P2O5 8.94, SO4 0.0007, Cl 0.0002, F 0.004, Fe 0.0008, Al 0.0006, Ca < 0.00004, As 0.00008, Si 0.0013, Cr < 0.0001, and V < 0.00005%.

IC C01B025-18
CC 49-2 (Industrial Inorganic Chemicals)

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